

INTERNATIONAL COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE
in its capacity as elected Office

Date of mailing (day/month/year) 28 September 2001 (28.09.01)	
International application No. PCT/GB00/03717	Applicant's or agent's file reference TJF/JY/35677
International filing date (day/month/year) 27 September 2000 (27.09.00)	Priority date (day/month/year) 27 September 1999 (27.09.99)
Applicant AIRD, Robert, Frederick et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
27 April 2001 (27.04.01)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<p>The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No.: (41-22) 740.14.35</p>	<p>Authorized officer Anman QIU</p> <p>Telephone No.: (41-22) 338.83.38</p>
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Copy for the designated Office (DO/US)
PATENT COOPERATION TREATY

PCT/GB00/03717

10/089,203

PCT

**NOTIFICATION OF THE RECORDING
 OF A CHANGE**

(PCT Rule 92bis.1 and
 Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

FAULKNER, Thomas, John
 fj Cleveland
 40-43 Chancery Lane
 London WC2A 1JQ
 ROYAUME-UNI

Date of mailing (day/month/year) 21 August 2001 (21.08.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference	
International application No. PCT/GB00/03717	International filing date (day/month/year) 27 September 2000 (27.09.00)

1. The following indications appeared on record concerning:

☐ the applicant ☐ the inventor ☒ the agent ☐ the common representative

Name and Address

INTELLIGENT SECURITY LTD.
 40 Occam Road
 Surrey Technology Centre
 The Surrey Research Park
 Guildford
 Surrey GU2 7YG
 United Kingdom

State of Nationality

State of Residence

Telephone No.

+44 1483 295030

Facsimile No.

+44 1483 295031

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☒ the person ☒ the name ☒ the address ☐ the nationality ☐ the residence

Name and Address

FAULKNER, Thomas, John
 fj Cleveland
 40-43 Chancery Lane
 London WC2A 1JQ
 United Kingdom

State of Nationality

State of Residence

Telephone No.

+44 (0)20 7405 5875

Facsimile No.

+44 (0)20 7831 0749

Teleprinter No.

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

☒ the receiving Office ☒ the designated Offices concerned
☒ the International Searching Authority ☐ the elected Offices concerned
☐ the International Preliminary Examining Authority ☐ other:

The International Bureau of WIPO
 34, chemin des Colombettes
 1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

DELMAS Dominique

Telephone No.: (41-22) 338.83.38

PCT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

FAULKNER, Thomas, John
fj Cleveland
40-43 Chancery Lane
London WC2A 1JQ
ROYAUME-UNI

Date of mailing (day/month/year) 29 September 2001 (29.09.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference TJF/JY/35677	
International application No. PCT/GB00/03717	International filing date (day/month/year) 27 September 2000 (27.09.00)

1. The following indications appeared on record concerning:

☒ the applicant ☒ the inventor ☐ the agent ☐ the common representative

Name and Address	State of Nationality	State of Residence
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☒ the person ☐ the name ☐ the address ☐ the nationality ☐ the residence

Name and Address COLBY, Edward, Grellier Sentec Limited Terrington House 13-15 Hills Road Cambridge CB2 1GE United Kingdom	State of Nationality GB	State of Residence GB
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

3. Further observations, if necessary:

Addition of inventor and applicant for US only.

4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Anman QIU Telephone No.: (41-22) 338.83.38
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PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

FAULKNER, Thomas, John
fj Cleveland
40-43 Chancery Lane
London WC2A 1JQ
ROYAUME-UNI

Date of mailing (day/month/year) 28 September 2001 (28.09.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference TJF/JY/35677	
International application No. PCT/GB00/03717	International filing date (day/month/year) 27 September 2000 (27.09.00)

1. The following indications appeared on record concerning:

☒ the applicant ☒ the inventor ☐ the agent ☐ the common representative

Name and Address	State of Nationality	State of Residence
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☒ the person ☐ the name ☐ the address ☐ the nationality ☐ the residence

Name and Address BLACK, Michael, John Sentec Ltd. Terrington House 13-15 Hills Road Cambridge CB2 1GE United Kingdom	State of Nationality GB	State of Residence GB
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

3. Further observations, if necessary:

Addition of inventor and applicant for US only.

4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Anman QIU Telephone No.: (41-22) 338.83.38
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PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Rule 71.1)

To:

FAULKNER, Thomas, John
fJ CLEVELAND
40-43 Chancery Lane
London WC2A 1JQ
GRANDE BRETAGNE

SH

Date of mailing
(day/month/year) 24.01.2002

Applicant's or agent's file reference
TJF/JY/35677

IMPORTANT NOTIFICATION

International application No.
PCT/GB00/03717

International filing date (day/month/year)
27/09/2000

Priority date (day/month/year)
27/09/1999

Applicant
VSD LTD et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER


The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

RECEIVED
23 JAN 2002
CLEVELAND, NY

Name and mailing address of the IPEA/

 European Patent Office - P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk - Pays Bas
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl
Fax: +31 70 340 - 3016

Authorized officer

Cardenas, C

Tel.+31 70 340-3370



PCT

RECD 25 JAN 2002

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference TJF/JY/35677	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/GB00/03717	International filing date (day/month/year) 27/09/2000	Priority date (day/month/year) 27/09/1999
International Patent Classification (IPC) or national classification and IPC G08B17/12		
Applicant VSD LTD et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 27/04/2001	Date of completion of this report 24.01.2002
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized officer Chateau, J-P Telephone No. +31 70 340 2980 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB00/03717

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:

1-8 as originally filed

Claims, No.:

1-9 as originally filed

Drawings, sheets:

1/1 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB00/03717

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	6,7,8,9
	No:	Claims	1-5
Inventive step (IS)	Yes:	Claims	6,7,9
	No:	Claims	1-5,8
Industrial applicability (IA)	Yes:	Claims	1-9
	No:	Claims	

2. Citations and explanations
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

D1: EP-A-583131

D2: US-A-5153 722

D1 discloses a flame detection algorithm that processes a sequence of video images, to detect sequences of images of flames (abstract). Therefore, the subject-matter of Claim 1 is not new (Article 33.2 PCT).

D1 discloses also the implementation of the algorithm in a system with a video source and an alarm triggered when a flame is detected. Although the frame grabber is not explicitly mentioned, the skilled person knows that usually a frame grabber is used in order to digitize the images (see D2, abstract). Therefore, the subject-matter of Claim 2 is not new (Article 33.2 PCT).

D1 discloses also the filtering of live images so that changes within a well-defined frequency band, characteristic of flame-like behaviour, is registered (col.7, lines 4-20). Therefore, the subject-matter of Claim 3 is not new (Article 33.2 PCT).

D2 discloses an algorithm that classifies changes in a sequence of images between flicker-like behaviour and non flicker-like behaviour (col.5, lines 40- 65). D1 discloses also the discrimination of changes the flickering rate of which are above or not a certain threshold, i.e. the classification between flicker-like behaviour and non flicker-like behaviour. Therefore, the subject-matter of Claim 4 is not new (Article 33.2 PCT).

The steps of Claim 5 are all disclosed in D1 (see above cited explanations). Therefore, the subject-matter of Claim 5 is not new (Article 33.2 PCT).

The additional step of Claim 6, i.e the computing of edge to volume ratio in the binary image is a further condition referring to the size of the flames in order to give or not an alarm signal . A similar step is disclosed in D2 (computing of the size of the flame area : col.5, line65- col.6, line 4) in order to trigger or not a fire suppressant unit. However, the aim is different (Claim 7) as are the features calculated (Claim 6).

Claim 8 cannot be seen as inventive, as the optimality criteria is a well known

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB00/03717

criteria almost used in every method (Article 33.3 PCT).

Re Item VIII

Certain observations on the international application

Although claims 1-4 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought and in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness. Moreover, lack of clarity of the claims as a whole arises, since the plurality of independent claims makes it difficult, if not impossible, to determine the matter for which protection is sought, and places an undue burden on others seeking to establish the extent of the protection.

Hence, claims 1-4 do not meet the requirements of Article 6 PCT.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 00/03717

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 G08B17/12 G06T7/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G08B G06T

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, PAJ, INSPEC, EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 583 131 A (KIDDE-GRAVINER LIMITED) 16 February 1994 (1994-02-16) column 7, line 10 - line 14 column 7, line 4 - line 6	1-3
Y	---	4-9
Y	US 5 153 722 A (A. DONALD GOEDEKE) 6 October 1992 (1992-10-06) column 5, line 40 - column 6, line 8 -----	4-9



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

28 June 2001

Date of mailing of the international search report

05/07/2001

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.
 Fax: (+31-70) 340-3016

Authorized officer

Chateau, J-P

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 00/03717

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 583131	A	16-02-1994	GB 2269454 A, B	09-02-1994
			US 5510772 A	23-04-1996
US 5153722	A	06-10-1992	NONE	